

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) A solvent composition for selective removal of COS from a gas stream containing same, said composition comprising

- a) at least one polyalkylene glycol alkyl ether of the formula



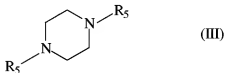
wherein R_1 is an alkyl group having from 1 to 6 carbon atoms; R_2 is hydrogen or an alkyl group having from 1 to 4 carbon atoms; Alk is an alkylene group, branched or unbranched, having from 2 to 4 carbon atoms, and n is from 1 to 10; and

- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R_3 is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R_4OH group; R_4 is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R_5 , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R_6 is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

2. (Withdrawn) The solvent composition according to Claim 1 wherein the polyalkylene glycol alkyl ether of the formula I is a mixture of polyalkylene glycol alkyl ethers comprising dimethyl ethers of polyethylene glycols of formula $\text{CH}_3\text{O}(\text{C}_2\text{H}_4\text{O})_n\text{CH}_3$ wherein n is from 1 to 10.
3. (Withdrawn) The solvent composition according to Claim 2 wherein the mixture of polyalkylene glycol alkyl ethers comprises from about 0 to about 0.5 wt% of diethylene glycol dimethyl ether, from about 5 to about 7 wt% of triethylene glycol dimethyl ether, from about 16 to about 18 wt% tetraethylene glycol dimethyl ether, from about 23 to about 25 wt% of pentethylene glycol dimethyl ether, from about 22 to about 24 wt% of hexaethylene glycol dimethyl ether, from about 15 to about 17 wt% of heptaethylene glycol dimethyl ether, from about 8 to about 10 wt% of octaethylene glycol dimethyl ether, from about 3 to about 5 wt% of nonaethylene glycol dimethyl ether, and from about 1 to about 2 wt% of decaethylene glycol dimethyl ether.
4. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is an alkanolamine of formula II in which substituent R_3 is hydrogen.
5. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is monoethanolamine.
6. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is an alkanolamine of formula II in which substituent R_3 is an alkyl group having from 1 to 6 carbon atoms or the R_4OH group.
7. (Withdrawn) The solvent composition according to Claim 6 wherein the alkanolamine of formula II is selected from the group consisting of diethanolamine, methylethanolamine and diisopropanolamine.
8. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is piperazine.
9. (Withdrawn) The solvent composition of Claim 1 wherein the component b) is hydroxyethylpiperazine.
10. (Withdrawn) A process for selective removal of COS from a gas stream containing COS and CO_2 , said process comprising contacting the gas stream with a solvent composition comprising

- a) at least one polyalkylene glycol alkyl ether of the formula



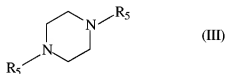
wherein R_1 is an alkyl group having from 1 to 6 carbon atoms; R_2 is hydrogen or an alkyl group having from 1 to 4 carbon atoms; Alk is an alkylene group, branched or unbranched, having from 2 to 4 carbon atoms; and n is from 1 to 10; and

- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R_3 is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R_4OH group; R_4 is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R_5 , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R_6 is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

11 – 18. (Canceled)

19. (Original) A solvent composition for selective removal of COS from a gas stream containing same, said composition comprising

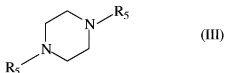
- a) 1,3-dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone; and

- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R_3 is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R_3OH group; R_4 is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R_5 , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R_6 is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

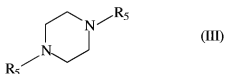
20. (Original) A process for selective removal of COS from a gas stream containing COS and CO_2 , said process comprising contacting the gas stream with a solvent composition comprising

- a) 1,3-dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone; and
- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R_3 is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R_4OH group; R_4 is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R_5 , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R_6 is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

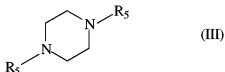
21. (Withdrawn) A solvent composition for removal of COS from a gas stream containing same, said composition comprising

- a) a mixture of N-formylmorpholine and N-acetylmorpholine; and
- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R_3 is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R_4OH group; R_4 is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R_5 , independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R_6 is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

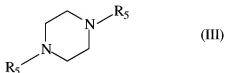
22. (Withdrawn) A process for selective removal of COS from a gas stream containing same, said process comprising treating the gas stream with a solvent composition comprising

- a) a mixture of N-formylmorpholine and N-acetylmorpholine; and
- b) at least one alkanolamine compound of the formula



or

at least one piperazine compound of formula



wherein R₃ is hydrogen, an alkyl group having from 1 to 6 carbon atoms, or the R₄OH group; R₄ is a branched or unbranched alkylene group having from 1 to 6 carbon atoms; R₅, independently in each occurrence, is hydrogen or an hydroxyalkyl group having from 1 to 4 carbon atoms; and R₆ is hydrogen, an alkyl group having from 1 to 6 carbon atoms or an hydroxyalkyl group having from 1 to 4 carbon atoms.

Respectfully submitted,

/Paul D Hayhurst/Reg No 30180
Paul D. Hayhurst
Registration No. 30,180
Phone: (989) 636-9373

P. O. Box 1967
Midland, MI 48671-1967

PDH/sdk